REGIONAL PROGRAMS

HONDURAS, NICARAGUA, GUATEMALA, EL SALVADOR, COSTA RICA

Some of the Department of Commerce activities were implemented on a regional basis for Central America rather than on a country-by-country basis. This was done for activities that could support at least all four Mitch- affected countries and that could be done more efficiently and cost-effectively. In general, the Department focused its regional programs in Costa Rica. Costa Rica was selected since the country has the infrastructure to support and sustain these programs, a key regional organization – Regional Committee for Water Resources (CRRH) is based there, and indirectly, new capabilities will be also then be provided to Costa Rica. Regional or country-based training programs (e.g., individual training, workshops) were provided for all activities. A summary of the Department's regionally-based activities is provided in the following table.

REGIONAL ACTIVITIES

Base Infrastructure Reconstruction

- Installation of satellite communications downlink system in Costa Rica for the Central America tide gage network
- Development of regional water level network equipment repository and maintenance capability (for tide gages, current measurements) in Costa Rica
- Installation of a GOES (U.S.) satellite ingest capability for the Central America region in Costa Rica (workstations located in each country)
- Implementation of a field monitoring network equipment maintenance planning workshop

Forecast and Early Warning Systems

- Development of a Regional Climate Prediction System – institutional and technical capabilities located in Costa Rica

Disaster Preparedness and Response

- Implementation of regional training programs and workshops including - river forecast system and hydrologic forecasting, tropical meteorology and climate variability, and increase capacity for local response authorities to prevent, plan for, and respond to spills of oil or other hazardous chemicals
- Support for operational meteorology and hydrology post graduate course
- Development of an approach for a regional hydrometeorological center

Sustainable, Resilient Coastal Communities

- No activities (Gulf of Fonseca Program activity)

Economic Revitalization

- Provide information on regional reconstruction efforts
- Facilitation of U.S. company contacts with reconstruction executing agencies in each country
- Raise awareness in Central America of U.S. companies' skills and expertise
- Facilitate bilateral industry cooperation to make the region more resilient to natural disasters

BASE INFRASTRUCTURE RECONSTRUCTION

As discussed in the country –specific sections, tide gages were installed in Honduras (1), Nicaragua (2), Guatemala (2), and El Salvador (3) as part of the Water Level Observation Network for Central America) (Red de Observacion del Nivel del Mar para America Central, RONMAC). As part of the RONMAC program, a **Data Quality Control Laboratory** (LABCODAT) was installed in Costa Rica. This laboratory is managed by CRRH. Since all the data from the tide gages is transmitted via the NOAA GOES Satellite Data Collection System (DCS), a Digital Readout Ground Station (DRGS) was installed at the by the Department at the LABCODAT facility. The responsibilities of the LABCODAT are managing the hardware and software associated with the DRGS, monitoring the performance of the tide gage sensors and the data transmission, data Quality Assurance/Quality Control (QA/QC), and data archiving. All the equipment related to the water level network, including spares, test equipment, and other measurement equipment (e.g., for current, wave measurement) will be assigned to the LABCODAT and be the responsibility of the CRRH. This approach will provide a **regional equipment repository and maintenance capability** for the water level observation network, lessening the burden on the countries to maintain the equipment.

DRGS Antenna at the LABCODAT, Costa Rica

In order to improve weather forecasting and early warning capabilities throughout the region, the Department installed a **geostationary operational environmental satellite (GOES) data ingest system** at the Instituto Meteorológico Nacional (IMN) in Costa Rica. The system installed in Costa Rica receives the imagery data transmitted from the satellite. The data are then transmitted to two workstations installed in each country via the Internet.

Greg Withee representing the U.S. and Ivan Vicente representing Costa Rica jointly participate in the Ribbon Cutting to inaugurate the Satellite Data Acquisition System for Central America. Linda Jewell representing the U.S. State Department and U.S. Agency for International Development looks on.

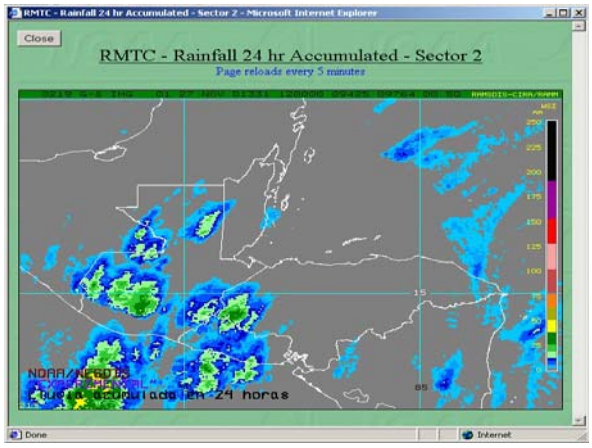
Each workstation (called RAMSDIS) is a desktop computer capable of displaying meteorological data for analysis by meteorologists and hydrologists. This capability provides a constant vigil for the atmospheric "triggers" for severe weather conditions such as flash floods and hurricanes. When these conditions develop forecasters can monitor storm development and track their movements. GOES satellite imagery is also used to estimate rainfall during the thunderstorms and hurricanes for flash flood warnings. The Department installed two RAMSDIS workstations in each of the four Mitch-affected countries plus two in Costa Rica under the Hurricane Reconstruction Project. Other, non-USAID funds were used to install workstations in Belize and Panama in order to provide complete, regional coverage.

RAMSDIS Workstation

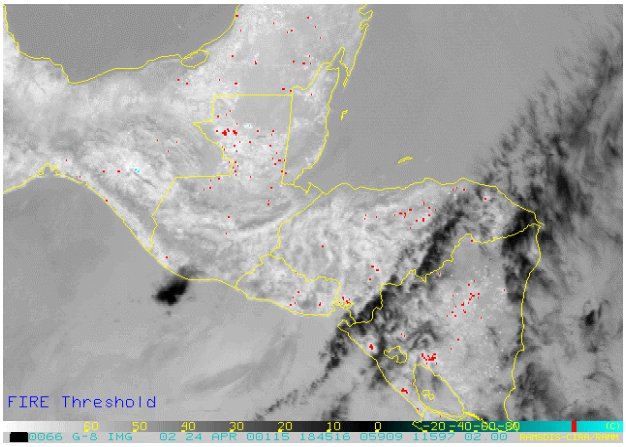
Products Displayed on RAMSDIS

- 1km Visible Imagery
- 4 km Visible Imagery
- 4km Infrared (IR2) Imagery
- 4km IR4 Imagery
- 8km IR4 Imagery
- 8km Water Vapor
- Rainfall Auto-Estimator
- Volcanic Ash Detection Product
- Fire Detection Product

The rainfall auto-estimator provides the region with rainfall estimates based on the satellite imagery. This is an important tool that is used to get estimates of rainfall totals over areas without in-situ raingages – a valuable flood early warning capability.



Rainfall Estimates - Auto Estimator



Fire Detection Product

A **visiting scientist** from the IMN in Costa Rica was hired to evaluate the auto-estimator in the Central America region. The scientist worked in Maryland for 17 months in collaboration with the NOAA scientists who developed the algorithm. Regional rainfall data were collected for the evaluation and a Technical Memorandum is in preparation that describes the results. Although the performance of the auto-estimator to date is generally good, continuous review of the outputs is necessary. Since returning to Costa Rica, the visiting scientist is continuing to collaborate with NOAA on the evaluation and improvement of the auto-estimator in Central America. The Department also coordinated the development of a Regional **GOES Help Desk** at the University of Costa Rica. The Help Desk will aid all countries with operations of the GOES system and play a major role in sustaining the system.

FORECAST AND EARLY WARNING SYSTEMS

One of the Department's activities in the region under the Hurricane Reconstruction Program was to reduce the negative disruption often associated with **climate variability and extreme events** through the development of a climate information and applications system for Central America. To do this, the following activities were accomplished.

ESTABLISH A REGIONAL, SEASONAL CLIMATE PREDICTION SYSTEM

Atmospheric scientists working along with regional based institutions and national meteorological services from Central America have shown great interest in developing capabilities in their own research laboratories for performing numerical model simulations and forecasts of regional climate. A goal in the region is to use information generated from regional forecasts as an additional tool to produce user information for the planning of activities and for the amelioration of socio-economic impacts of regional climate systems.

The main objective of this activity was to generate seasonal climate diagnostics and predictions based on the use of a numerical model that resolves the high spatial resolution forcing elements in Central America. The possible use and implementation of climate forecasts in decision-making for different societal sectors was considered in future (potential) phases of the project. This activity also relied on the network created and information provided through the Climate Outlook Forum process in Central America, as well as through the Climate Variability Training Course sponsored by the Department under the Hurricane Reconstruction Program that was held in San Jose, Costa Rica, in February 2001. The training course contributed to the capacity of the region to utilize climate information in natural disaster mitigation and preparedness efforts, and supported the initiative to develop a climate information and applications system for Central America.

The following was accomplished under this activity:

1. Development of databases

To validate model simulations it is necessary to make use of as much meteorological information as possible (operational and special observations, etc). Participants in this project have reached the objective of defining a complete regional meteorological database.

2. Development of statistical tools

Implementation of multivariate statistical techniques, has been undertaken by Dr. E. J. Alfaro at the University of Costa Rica to develop applications useful for data analysis and prediction.

3. Student training

A number of students from the region currently working towards their post-graduate degrees (Program on Operational Hydrology and Applied Meteorology) at the University of Costa Rica received basic courses on climate prediction. More training activities in the use and applications of numerical models for climate prediction have been developed during the implementation of the project. The participation of students, especially those from Central America, is considered important in the formation of new scientists and the development of a regional capacity in this respect. The International Research Institute for Climate Prediction (IRI), NOAA/OGP and the University of Costa Rica supported the participation of Dr. Erick Rivera, a young meteorologist from the Center for Geophysical Research, in the "Intensive Course on Dynamical Downscaling of

Seasonal to Interannual Climate Prediction" held at IRI, University of Columbia, New York, during the period January 15th – April 6th 2001.

4. Equipment acquisition and implementation

The Department acquired the equipment needed to execute a regional mesoscale meteorological model (MM5) and to implement the databases. The equipment was installed at the University of Costa Rica. Prior to its installation, the Department performed a topological study of the University communication network to ensure proper data transfer, speed and efficiency for climate prediction activities. The University, using its own funds, constructed an additional laboratory to host the Department's activities and purchased equipment.

5. Miscellaneous

Over the past two years, J. A. Amador, V. O. Magaña, and E. J. Alfaro have all attended a number of NOAA/OGP sponsored Climate Outlook forums (Belize, May 2000; Tegucigalpa, June 2001; and San Salvador, August 2001) to help develop seasonal predictions for the Greater Caribbean and Central American regions. The participation of J. A. Amador in the Workshop on Monsoon Applications and Human Dimensions, in Tucson, 18-20 June 2001, provided an opportunity to discuss climate prediction applications that could be implemented or adjusted in the future in the Central America region. A poster, aimed at the general public with some of the project expected results for climate applications, was on display during the University of Costa Rica Expo 2001 last August.

The modeling system (MM5) generated through this project is of regional extent with higher spatial resolution than General Circulation Models, and is driven by time dependent boundary conditions provided by models such including CCM3 and ECHAM2. Advances have been made that should significantly improve the prediction skill of the regional climate system, of the regional scientific infrastructure, and it has provided a unique opportunity to enhance regional collaboration among National Weather and Hydrological Services and other regional institutions.

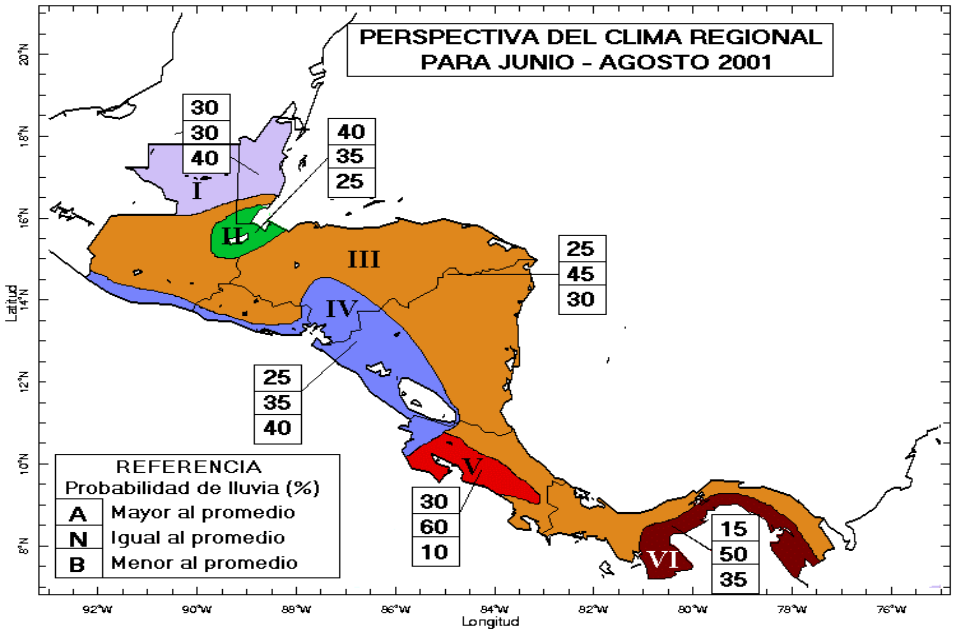
DEVELOPMENT OF A REGIONAL, SEASONAL CLIMATE PREDICTION SYSTEM / COMPLETION OF TRAINING WORKSHOPS IN CLIMATE FORECASTING AND RISK MANAGEMENT

The Department sponsored in part through the Hurricane Reconstruction Project, several Regional Climate Outlook Forums (COFs). These forums played a significant role in capacity building, in strengthening the links between producers and users of climate information, and have stimulated the development of national efforts for the preparation of seasonal climate perspectives in some countries. Forums have also stimulated interest in and created recognition of the impacts of interannual climate variability in the Region and assisted in developing activities that both mitigate against these impacts and help adapt to climate variability.

The COFs have achieved the following set of objectives: (i) bringing together both producers and users of climate information and facilitating the exchange of information between these two groups; (ii) advancing climate forecasting activities in the region; (iii) increasing awareness of the availability as well as the potential usefulness of climate forecasts and other types of climate information; and (iv) electing a regional steering committee to coordinate and oversee the development of climate forecasting and applications activities.

During the course of the Hurricane Reconstruction Project, the Department was involved in three forums – Belize, Tegucigalpa, and San Salvador. The San Salvador forum, building on the success of past Forums, was convened to produce a consensus climate outlook for the months of September.-October.-November 2001. This forum, and the preceding one held in June 2001 in Honduras, were of particular importance due to the severe drought impacting the region. Because of the severity of the drought situation, representatives from the Ministries of Agriculture from each of the 7 Central American countries were involved in the meeting, to share their concerns and to state their information needs. The Ministries of Agriculture used the consensus climate outlook as a decision-making tool in planning for the months ahead to aid with the response to the drought situation

One very important note about the climate outlook forum process is that Central America has taken steps to institutionalize the process and they have taken over coordination of the regional effort. An indication of this is the fact that they held a climate outlook forum in Managua, Nicaragua (April 22-24th. 2002), and they have done all of the planning and coordination without request for outside financial support. These meetings have gained high-level attention due to the ongoing drought situation, and ministers of agriculture are among some of the important decision makers that have been engaged in the process and are eager to learn how to use the outlook to better plan for the months ahead. With the current climate outlook forum in Nicaragua, they are holding a three day meeting: the first two days are the more technical parts of producing the consensus climate outlook, and the third day they are holding a video conference to link up the 6 Spanish-speaking Central American countries. The video conference aspect was a big success when it was first used during the 2001 Central American climate outlook forums, and it allows many other groups and individuals to engage in the process.



Tegucigalpa COF Output

DISASTER PREPAREDNESS AND RESPONSE

As with the country-specific disaster preparedness and response activities, many of the regional disaster preparedness and response activities focused on training and capacity building. For the regional programs, this entailed training courses and workshops, some of which have been discussed in previous sections of this report. Some of the regional workshops included the following.

Water Level Network Workshops

The Department implemented two in-country **tides workshops**. The first workshop was in Antiqua, Guatemala during the week of May 14, 2001. During this workshop, training was presented in water level data processing to technical representatives from the four participating nations. The workshop manual was translated into Spanish and also presented in Spanish. Presentations were also provided on data analysis and the processing database. The second workshop was held in Heredia, Costa Rica October 16-18, 2001. This workshop addressed the operation and maintenance of the Data Collection Platforms and sensors, required leveling, communications, data downloads, trouble shooting, and documentation.

Hydrologic and Meteorological Forecasting and Early Warning Workshops

The Department, through the Hurricane Reconstruction Project, sponsored the attendance of Central America representatives at three **National Weather Service River Forecast System workshops** in the United States. These workshops provided information on the NWSRFS (as installed in Nicaragua and El Salvador) applications and operations as well as sessions on topics such as hydrologic forecasting, forecast center operations and design, product development and dissemination and integration of meteorological operations and products.

The Department sponsored Central America representatives at a one-month **hydrologic forecasting course** in the United States. The attendees learned various hydrologic forecasting techniques and applications.

The Department sponsored Central America representatives at course entitled *Essential Aspects of Tropical Meteorology* in Panama. The three-week course emphasized tropical observations, observing systems, **tropical forecasting techniques**, and the analysis of tropical data for both forecasting and research activities.

Through the Department's sponsorship, Central America representatives attended a two-week course on *Preparing for Climate Variability and Extreme Events in MesoAmerica – A Regional Course on Production and Practical Use of Climate Forecasts*. The course was designed to strengthen the regional capacity to face **climate variability** through practical applications of climate forecast decision-making and to promote the exchange of knowledge and experience between scientists working in the field of weather and climate prediction and the actual and potential users of that information.

The Department, in conjunction with the Comite Regional de Recursos Hidraulicos del Istmo Centroamericano (CRRH) and the University of Costa Rica developed and implemented a post graduate course in operational meteorology and hydrology. The course was approximately 15 months long and held at the University of Costa Rica. The Department, through the Hurricane Reconstruction Program, sponsored up to two students from the meteorological/hydrologic services in the four Hurricane Mitch-affected countries and the Dominican Republic. The purpose of the course was to build **operational meteorological and hydrologic capacity** within the country.

Equipment Maintenance Workshops

As part of its support to base infrastructure reconstruction throughout the region and to improve the sustainability of installed systems, the Department sponsored a **field monitoring network equipment maintenance program workshop** in the United States. Attendees included key maintenance personnel from Honduras, Nicaragua, Guatemala, and El Salvador. The goal of the workshop was to have each country complete a maintenance planning and logistics manual, tailored specifically to each countries equipment, needs and requirements. This was done and country representatives were able to complete a plan that could be implemented as part of their own maintenance program.

Maintenance Planning Workshop

Spill Preparedness and Response Workshops

Standard training tools used by NOAA were modified and translated into Spanish for use in the final one-week workshop in San Pedro Sula, Honduras. An additional training aid, the Trajectory Analysis Handbook, was developed as part of this effort. The following tools and guidance documents were used during the workshop and distributed to all participants:

1. Aerial Observations of Oil. This guidebook contains pictures of various types of oil spilled at sea and includes definitions and standard terminology used to define oil's appearance on the water.

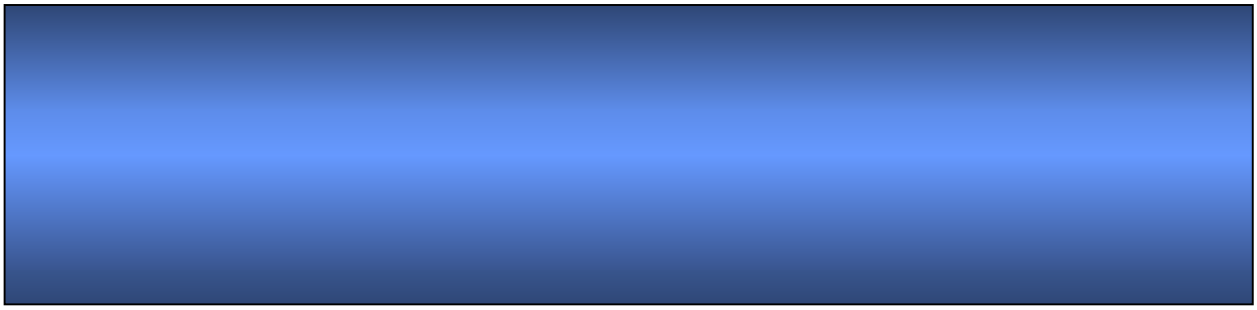
2. Shoreline Assessment Job Aid. Habitat identification and a methodology for identifying, quantifying and recording shoreline oil impact are provided in this field guide. The habitat depictions correlate to those in Environmental Sensitivity Index work, for example.

3. Coastal Characteristics. Response technologies for habitats identified on products such as Environmental Sensitivity Indexes and in the Shoreline Assessment Job Aid are evaluated and discussed in this guidebook.

4. Trajectory Analysis Handbook. The physical processes relevant to determining the movement of oil are summarized and presented in this field guide.

5. Computer Aided Management of Emergency Operations (CAMEO). The CAMEO program was translated into Spanish as part of a separate EPA-sponsored effort, but proved quite appropriate for use in this effort. This tool provides access to response information for 6,090 chemicals, including physical property information and over 60,000 synonyms to assist in chemical identification.

6. Automated Data Inquiry of Oil Spills (ADIOS). The ADIOS program was the only tool used as part of the workshop that was not available in Spanish. Because of the extensive nature of the program, it was not initially considered as part of this technology transfer activity. However, during preparatory activities for the training and contingency planning workshops, it was identified as a useful tool by local agencies - even if it only existed in English. This model has a database of approximately 1,000 oil and oil products. By providing local environmental information (such as air and sea temperature, wind speed, wave heights, and salinity), weathering processes of specific oils can be identified (such as evaporation, dispersion, dissolution, etc.) and relevant property changes over time can be calculated (e.g., viscosity, water content).



Excerpt from *Framework – Center for the Integration of Hydrometeorological Activities in Central America*

In addition to the training and capacity building activities noted above, the Department also worked with regional counterparts to develop a framework for a regional center for hydrometeorological activities in Central America. The Department drafted a document – *Framework – Center for the Integration of Hydrometeorological Activities in Central America* that provides an overview of the center, its functions and mission and an estimate of initialization and operational costs.

The framework developed by the Department was based on research by the *Comité Regional de Recursos Hidraulicos del Istmo Centroamericano* (CRRH) on the needs for regional support to the meteorological and hydrologic services in Central America. The work done by CRRH was through the Department's Hurricane Reconstruction Program. What is described in the framework is a center that can most benefit the Region based on the current condition of the meteorological and hydrologic services.

The idea of a regional center for hydrometeorological activities was raised during evaluations of needs to transform and strengthen the national meteorological and hydrological services (NMHSs) in the region following Hurricane Mitch in October-November 1998. The Department performed these evaluations as part of the Hurricane Reconstruction Program. What was found was a need for

the NMHSs to provide more operational services, especially in the area of early warnings for severe weather-related events such as flooding. Though the idea of a regional center had been proposed in the past – the need for a centralized and integrated approach for continued strengthening of these agencies was most evident after the hurricane. Due to restrictions on financial and personnel resources continued transformation and strengthening by individual country is difficult – as is sustaining existing meteorological and hydrologic programs. Therefore, a regional center, which can act as a focal point for supporting and coordinating the meteorological and hydrologic services and efficiently enhancing their capabilities, is proposed. The goal is to build solid national meteorological and hydrologic services with well thought out and sustainable programs and then enhance their technical capabilities through a central, regional facility that supports each service.

SUSTAINABLE, RESILIENT COASTAL COMMUNITIES

No activities (Gulf of Fonseca Program activity)

ECONOMIC REVITALIZATION

To help U.S. companies participate in internationally-funded reconstruction projects and other trade and investment opportunities in Central America, the Department focused its efforts on four areas: (1) providing information on reconstruction efforts and possible projects, (2) facilitating U.S. company contacts with host countries' executing agencies, multilateral development banks, and potential business partners, (3) raising awareness in Central America of U.S. companies' skills and expertise, and (4) facilitating bilateral industry cooperation to make the region more resilient to natural disasters. ITA also served as an important source of information about other U.S. Government programs available for U.S. companies interested in reconstruction projects. U.S. companies contacted ITA's liaison offices at the Inter-American Development Bank and the World Bank-- the principal multi-lateral development banks funding projects in the infrastructure, transportation, and the social sectors-- for guidance and information on projects and procurement procedures.

Prior to Hurricane Mitch, the Central American countries had made significant progress strengthening democracy and liberalizing their economies. Trade liberalization, macroeconomic stabilization, and the introduction of private investment in previously state-owned enterprises have resulted in significant trade and investment opportunities for U.S. companies. The United States is Central America's most important trading partner and its largest foreign investor, with 1998 U.S. trade with Central America (specifically Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua) totaling $17.6 billion. Top U.S. exports to the region include wheat, rice, oil, and apparel components for assembly and re-export. Top exports to the U.S. include bananas, coffee, sugar, and apparel. Continued growth of these industries, as well as tourism, non-traditional agriculture, and forestry, are critical to Central America's economic reconstruction. U.S. companies played an important role in Central America's reconstruction efforts by providing desperately needed resources and skills, and were well-received by Central American companies.

Theses are the highlights of the Department's activities:

- ***January 1999***-A USDOC team comprised of officials from the Office of the Secretary, ITA and NOAA visited Central America to assess damage from Hurricane Mitch and to determine the role of the U.S. private sector in reconstruction efforts. The team's report was forwarded to the White House.

- ***Late 1999 and early 2000***-Secretary Daley and U/S Aaron participated in several Hurricane Mitch conferences, highlighting the role of the Department of Commerce in marshaling private sector participation in the reconstruction effort. At a Chamber of Commerce event held in early February, U/S Aaron announced his intention to lead a reconstruction mission to Central America in late March.

- ***March 1999***-Ambassador Aaron led a highly successful, 16-company mission, to Guatemala, Honduras, El Salvador and Nicaragua. Besides highlighting U.S. corporate interest in the reconstruction of Central America, the mission underscored the U.S. private sector's compassion for

the citizens of the region. One mission member donated a pre-cast concrete bridge and another donated water purification equipment. Both gifts were made to Honduras, the most severely damaged of the countries in the region. Baker Concrete, which donated the bridge, subsequently won a USAID-funded contract to build temporary bridges in Honduras.

A primary goal for the mission was to enhance the exposure of small and medium-sized U.S. firms to importers and distributors in the target countries, through one-on-one meetings with representatives of potential business associates and to provide U.S. firms a high-profile opportunity to achieve further penetration of this market by meeting with host-country decision-makers in the government and private sectors. As of this writing (two months after completion of the mission), all of the participants were still pursuing leads (ranging from $20,000 to multiple, unquantifiable contracts and several million dollars) that they got during this trip. Most of the participants have already gone back to the region to follow-up on these leads. In addition, during the trip, three of the participating SMEs announced that they were donating equipment to the region. Most of the companies took the time to express their thanks to Department officials to complement the team on the "magnificent job", "very well organized, scheduled, and coordinated" mission, and on the substantial results of the mission.

The mission surpassed participants' expectation in facilitating and establishing meetings between U.S. companies and Central American business leaders . The business delegation participated in several programs, including qualified matchmaker appointments with pre-screened Central American companies, expert market briefings with senior Central American, multilateral development banks (IDB; World Bank) and U.S. Government officials. Ambassador Aaron's leadership allowed the group to meet with the highest levels of Central American leaders ranging from the President to the Reconstruction Cabinet and individual ministers. In addition to one-on-one meeting with potential partners, meetings with the private sector, include American Chamber of Commerce and non-governmental organizations. Both small and large companies found the commercial intelligence gathering portion of the trip very useful.

The mission also sought to provide U.S. Government support of Central America's efforts to achieve greater transparency and even-handedness in procurement. Ambassador Aaron raised those issues in bilateral consultations and at press events. All four countries stated that they either had taken or were taking steps to ensure transparency in reconstruction contracts

In addition, ITA's Office of Textiles and Apparel sponsored a textile trade mission to Guatemala, El Salvador, Honduras, and the Dominican Republic October 2000. The mission consisted primarily of 6-12 apparel fabric manufacturers and suppliers. Participants met individually with buyers, agents and distributors, pre-selected and qualified by ITA.

- ***May 1999***-A/S Mulloy chaired a briefing for the U.S. business community on preparations for the Stockholm Consultative Group meeting of bilateral and multilateral donors. The briefing included the participation of the State Department, USAID, and the Inter-American Development Banks. MAC/OLAC Director Walter Bastian participated as the Commerce Department's representative to the Stockholm CG meeting, where he co-chaired the technical working group for trade.

- ***May 1999*** Commerce Secretary Daley signed a MOU with the USAID Assistant Administrator, Mark Schneider, and with the President and CEO of AF&PA, Henson Moore initiating the Honduras Reforestation Initiative (HRI). The HRI is a precedent-setting public- private partnership developed to complement the State Department's Hurricane Mitch reforestation efforts in Honduras and demonstrate the U.S. industry's Sustainable Forestry Initiative (SFI)SM program. This Initiative will rebuild certain forests in Honduras and set the stage to encourage other countries to adopt U.S. standards for linking business to sound environmental practices. Commerce developed an opportunity through which AF&PA has successfully demonstrated its SFISM program in the international arena to the benefit of USAID's efforts to reforest Honduras. Due to implementation of key components of the SFISM program, the success of future reforestation efforts and long-term land use and resource development in Honduras will be greatly improved due to the technology transfer of better nursery management and forestry practices.

- ***June 1999***- ITA organized seminars for the U.S. business community in key cities in the United States. These seminars focused on U.S. Government programs in support of Central American reconstruction and included representatives from USDOC, the State Department, USAID, Commerce's IDB liaison office, SBA and EX-IM. Each event also featured a luncheon speaker from one of the countries impacted by Hurricane Mitch.

- ***Late August 1999***-ITA representatives organized a follow-up visit and traveled to Central America to meet with the IDB/World Bank representatives, government officials and private sector leaders to assess progress of the reconstruction process, to identify new opportunities for U.S. companies, and to evaluate the administration and procurement of internationally-funded projects.

- ***December 1999***-ITA designed and organized a seminar to encourage a dialogue between the U.S. private sector and the Central American and Caribbean governments and private sectors on creating conditions to reduce the economic impact and vulnerability of investments to natural disasters in the region. This event, held in Miami in early December, attracted about 150 public and private sector participants from the Caribbean, Central America, and the United States, and included representatives from USAID, HUD, and the U.S. Department of State. Mrs. Mary Flores, First Lady of Honduras, delivered a luncheon address at this event. In addition to special plenary presentations by U.S. Government officials and companies, the program featured a series of concurrent

workshops focused on insulating operations in the following industry sectors: agribusiness/forestry; energy; telecommunications; construction/housing; transportation (roads, bridges, airports, ports); water and wastewater and manufacturing. These workshops provided U.S. companies with an opportunity to present their experiences in insulating their investments in countries or regions prone to natural disasters.

- ***June 2000***- ITA expert Regina De Leonardis gave a presentation in Buenos Aires, Argentina, on the private sector's role in disaster preparedness at the Disaster Preparedness Seminar organized by the U.S. Southern Command.

- ***June 2000***- In conjunction with the American Water Works Association Conference and Exhibition held in Denver, June 11-14th, TD's Office of Environmental Technologies Industries organized a reverse trade mission from Central America. The mission featured a series of seminars and over 120 one-on-one meetings with the mission delegates. The reverse mission was composed of key decision-makers in the water sector from the four Hurricane Mitch countries as well as one commercial specialist from each post. Over $1.5 million in sales of U.S. water treatment technologies resulted from this event.

- ***June2000-*** TD, USAID, and the American Forest & Paper Association hosted a delegation of ten Honduran nursery managers as part of the Honduran Reforestation Initiative. The delegates visited Alabama and Georgia to view forest development. The goal of this mission was to demonstrate to Honduras and the rest of Central America that sustainable management of forests is more profitable than the current haphazard cutting practices. In September, Secretary Mineta extended by one year our cooperation agreement with the American Forest & Paper Association.

Reforestation Initiative – Honduran Nursery Managers

- ***September 2000***- The Department held a very successful conference on the insurance sector in El Salvador. Attendees/participants from Central America included insurance regulators, representatives from various ministries, the AmChams, and representatives of U.S.

insurance/reinsurance companies. U.S. participants include representatives from FEMA, the World Bank/IFC, reinsurance companies, claims adjusters, and the Florida State Insurance Commission.

- ***September 2001***- ITA's Office of Environmental Technologies Industries (ETI) led a highly successful reverse trade mission to Mexico City at the Enviro-Pro Tecomex trade show. The mission participants included government officials and key decision makers in the water sector from Central American Mitch countries escorted by FSN's from each market. Mission participants attended Mexico's largest environmental trade event, Enviro-Pro Tecomex, in Mexico City in order to meet with over 40 U.S. exhibitors in the DOC-certified U.S. Pavilion in pre-arranged appointments. The group also participated in a special briefing session presenting environmental business opportunities and projects in their respective markets to U.S. companies

- **Throughout 1999 and 2000,** the Department held a series of "Doing Business in Central America" seminars in various U.S. cities to increase awareness of business opportunities in Central America among the U.S. business community. The Department worked closely with industry associations focusing on sectors prioritized for the region (i.e. infrastructure, construction, agribusiness, energy). The Department undertook an aggressive outreach and education program. Department staff participated in domestic trade shows to increase awareness of reconstruction- related opportunities for US businesses; and talked with trade mission participants to get private-sector perspectives and update on reconstruction efforts, feedback on info on web site, and success stories to post on website. To centralize the dissemination of information, ITA's Trade Information Center (1-800-USA-TRADE) developed a website with extensive links providing information on Central American reconstruction efforts and project opportunities.